

Model Curriculum

Cluster In-Charge

SECTOR: TELECOM

SUB-SECTOR: Passive Infrastructure

OCCUPATION: OPERATION & MAINTENANCE

REF ID: TEL/Q4101

NSQF LEVEL: 5



Certificate

**COMPLIANCE TO
QUALIFICATION PACK – NATIONAL OCCUPATIONAL
STANDARDS**

is hereby issued by the

TELECOM SECTOR SKILL COUNCIL

for

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: '**CLUSTER IN-CHARGE**'
QP No. '**TEL/ Q4101 NSQF Level 5**'

Date of Issuance: **June 31st, 2017**

Valid up to: **June 30th, 2019**

Authorised Signatory
(Telecom Skill Development Council)

** Valid up to the next review date of the Qualification Pack*

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CLUSTER IN-CHARGE

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Cluster In-Charge”, in the “Telecom” Sector/Industry and aims at building the following key competencies amongst the learner.

Program Name	Cluster In-Charge		
Qualification Pack Name & Reference ID. ID	TEL/Q4101		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	ITI/ Diploma in Electricals/Mechanical		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Identify: The site equipments and system components • Provide: The relevant solutions to resolve the issues • Maintain: The site hygiene, site up-time, OPEX management, preventive maintenance and corrective maintenance • Provide basic checks and report: Fault analysis report 		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Cluster In-Charge” Qualification Pack issued by “Telecom Sector Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Theory Duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Understand General Discipline in the class room (Do's & Don'ts) Learn about the telecom industry Develop understanding about the Telecom Infrastructure industry Understand role of a Cluster In-Charge Differentiate between various technologies used in Telecom Networks Understand about the various equipment deployed at a tower site. Know about the tools used in maintaining a tower site. 	Laptop, white board, marker, projector
2	<p>Maintain Site Hygiene</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code TEL/N4105</p>	<ul style="list-style-type: none"> Understand how to maintain the site hygiene Know about the site cleanliness and hygiene of site equipments Know how to resolve the issues with landlord, legal etc. Learn to conduct periodic audit by visiting sites Understand the usage and wastage of energy at sites Understand the company polices and guidelines to maintain site standards 	Laptop, white board, marker, projector, AC, DG, PIU, SMPS, battery bank Equipments
3	<p>Monitor site up-time and operate with less faults</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 25:00</p> <p>Corresponding NOS Code TEL/N4106</p>	<ul style="list-style-type: none"> Learn how to create preventive maintenance plan Learn how to monitor site performance Learn how to perform health check on site like checking engine oil, voltage etc. Learn how to monitor site faults, ensure timely rectification and devise solution of the recurring faults Understand to create fault analysis and up-time report for all sites of the cluster Knowledge of impact of OPEX (Operating Expenditure) on the company 	Laptop, white board, marker, projector, AC, DG, PIU, SMPS, battery bank Equipments
4	<p>OPEX Management and impact of increase in expenditure</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code TEL/N4107</p>	<ul style="list-style-type: none"> Understand how to troubleshoot DG/Battery bank Learn to maintain energy cost Learn to identify scope for security head count reduction Learn how to inform Zonal Manager Know how to check proper locking of site equipments Know how to ensure that Preventive maintenance and repair costs are under control 	PC/Laptop, white board, marker, projector, AC, DG, PIU, SMPS, battery bank Equipments

Sr. No.	Module	Key Learning Outcomes	Equipment Required
5	<p>Identify and resolve issues</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code TEL/N4108</p>	<ul style="list-style-type: none"> Learn how to monitor and understand the issues Identify and track the number of sites being locked Learn how to interact with landlords to understand their issues Learn to analyse the issues of technicians, landlords and vendors Provide the relevant solutions to resolve the issues 	Laptop, white board, marker, projector, Cable, Computer, AC, DG, PIU, SMPS, battery bank Equipments
6	<p>Perform corrective maintenance of DG, AC, PIU, SMPS, Battery Bank and Shelter</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code TEL/N4104</p>	<ul style="list-style-type: none"> Determine the need for corrective maintenance Know about the adherence for maintenance plan Understand the effective maintenance on all equipment Know how to escalate the faults/issues at site Understand how to fill the corrective maintenance checklists/reports Know about all the equipment and system components Understand the special tools and equipment used for system repairs 	Laptop, white board, marker, projector, Computer, AC, DG, PIU, SMPS, battery bank Equipments
7	<p>General Safety</p> <p>Theory Duration (hh:mm) 05:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code TEL/N</p>	<ul style="list-style-type: none"> Learn about General Safety while handling electrical/electronic devices Understand Proper use of PPE (Personal Protective Equipment's) Understand on Work Environment Area Protection Learn about the organisation's emergency procedures 	Laptop, white board, marker, projector
8	<p>IT & Soft Skills</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 15:00</p> <p>Corresponding NOS Code NA</p>	<ul style="list-style-type: none"> Understand Importance of MS-Office applications Understand and work with Microsoft Word, Excel, PowerPoint and Outlook Understand the Importance of Business email communication Understand Dos and Don'ts of Email Communication Safe practices on use of e-space/internet/web Understand the use of Language and Important Words for Communication Understand the Importance of Body Language Understand the Dos and Don'ts at Work Place 	Working on MS-Office tools

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Understand the differences between hearing and listening Understand the Importance of Time Management 	
	Total Duration Theory Duration 150:00 Practical Duration 150:00	Unique Equipment Required: Laptop, white board, marker, projector	

Grand Total Course Duration: **300Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Telecom Skill Council of India](#))

Trainer Prerequisites for Job role: “Cluster In-Charge” mapped to Qualification Pack: “TEL/Q4101, v1.0”

Sr. No.	Area	Details
1	Description	Trainer provides training to monitor preventive maintenance, corrective maintenance and on-site repair, through regular site visits and audits; maintain hygiene of the tower site, train site technicians, develop healthy relationship with landlords & vendors, handle all types of issues/fault on site and control other operational expenses
2	Personal Attributes	individual to be technically qualified, self-disciplined, action-orientated, people management skills, possess analytical skills, problem solving ability, effective communication skills and ability to work under pressure
3	Minimum Educational Qualifications	ITI/ Diploma in Electricals/Mechanical
4a	Domain Certification	Certified for Job Role: “Cluster In-Charge” mapped to QP: “TEL/Q4101, v1.0”. Minimum accepted score is 70%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “TEL/Q4101”. Minimum accepted % as per respective SSC guidelines is 70%.
5	Experience	3-5 years for B Tech / B.E

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Cluster In-Charge
Qualification Pack	TEL/Q4101
Sector Skill Council	Telecom

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on these criteria.
5	To pass the Qualification Pack, every trainee should score a minimum of 40% in every NOS and 50% overall.
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

Assessment Outcome	Assessment Criteria	Total Mark (500)	Out of	Theory	Skills Practical
1. TEL/N4105 (Maintain site hygiene)	PC1. maintain excellent level of site quality like proper cable laying, correct temperature, correct settings, site in	100	20	10	10
	PC2. provide for safety of assets and the team		15	10	5
	PC3. periodic audit by visiting sites to assure that civil, tower, electrical and other infrastructure are in the best		20	10	10
	PC4. conduct periodic compliance audit of technicians, vendors, spares including any ethical issues incorrect billing calculations, diesel or energy		10	5	5
	PC5. check for maintenance of site cleanliness and hygiene of AC, DG, PIU, SMPS, battery bank and shelter, as		20	5	15
	PC6. maintain work standards despite movement of manpower		10	10	0
	PC7. check and resolve site lock issues with landlord, legal etc.		5	0	5
	Total		100	50	50
2. TEL/N4106 (Maintain site up-time)	PC1. create a PM (preventive maintenance) plan for self and the technicians	100	20	10	10
	PC2. create and monitor Beat plan execution, for self and technicians		10	10	0
	PC3. monitor site PM (preventive maintenance)		10	5	5
	PC4. perform health check on site like checking engine oil, voltage etc.		10	0	10
	PC5. validate periodic maintenance check conducted by the vendor technicians		10	5	5
	PC6. monitor site faults, ensure timely rectification and devise solution of the recurring faults		15	5	10
	PC7. create fault analysis and up-time report for all sites of the cluster		5	5	0
	PC8. maintain zero breakdown delivery for cluster, to optimize Operating Expenditure (OPEX)		10	10	0
	PC9. share best practices of technicians to maintain site up-time, through e-mails/meetings		10	10	0

		Total	100	60	40
3.TEL/N4107(OPEX management)	PC1. maintain energy cost through site automation, diesel cost per tenant etc.	100	25	15	10
	PC2. troubleshoot DG/Battery bank.		25	0	25
	PC3. identify scope for security head count reduction and inform Zonal Manager		15	15	0
	PC4. check proper locking of main gate / DG / Shelter etc.		15	5	10
	PC5. govern vendors effectively to ensure that PM & repair costs are		20	10	10
		Total	100	45	55
4. TEL/N4108 (Identify and resolve issues)	PC1. understand issues escalated by tower technicians and provide relevant solution	100	10	6	4
	PC2. identify and track the number of sites being locked		12	6	6
	PC3. interact with landlords to understand their issues and offer best solution		15	9	6
		Total	100	50	50
5.TEL/N4104 (Corrective Maintenance)	PC1. timely identification of the need for corrective maintenance	100	20	20	0
	PC2. adhere to maintenance plan		20	10	10
	PC3. effective corrective maintenance on all equipment		15	5	10
	PC4. escalate faults/issues at site to supervisor		15	10	5
	PC5. fill the corrective maintenance checklists/reports		15	15	0
	PC6. close maximum number of faults reported		15	5	10
		500	100	65	35